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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,128	12/27/2000	Yeong-Taeg Kim	SAM1.0081	5001

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EXAMINER
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BUI, KIEU OANH T

ART UNIT	PAPER NUMBER
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2623

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/04/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

09/749,128

**Applicant(s)**

KIM, YEONG-TAEG

**Examiner**

KIEU-OANH BUI

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/23/2007 has been entered.

### ***Remark***

2. Claims 1-33 are pending for reconsideration, with claims 26-33 are newly added after the last final office action.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

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5. Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al (U.S. Patent No. 6,738,978 B1) in view of Macrae et al. (U.S. Patent No. 6,745,391 B1).

Regarding claim 1, Hendricks discloses “an interactive digital video service network, comprising: means for providing a digital signal, the digital signal having information reflective of at least one regular program and at least one Background Commercial; an end user, the end user having a receiver for receiving the digital signal and a presentation unit for displaying at least a portion of the digital signal; a channel communicating the digital signal from the means for providing a digital signal to the receiver; selection means for allowing the end user to select between the at least one regular program and the at least one Background Commercial for display on the presentation unit; and a return channel communicating Background Commercial Viewing Data from the receiver to a digital service operator” (Figs. 1 & 2 for an interactive digital video service network, either analog and digital signal service is provided, col. 7/line 45 to col. 8/line 30; the end user, as shown in Figure 3, uses a remote interface for controlling the TV and cable box or set top terminal 220—a receiver in receiving digital stream signals—also as a communication device for providing upstream interactive activities to the network controller 214—regarding as using “return channel” for communicating to the headend cable system, namely, the network controller 214; furthermore, network controller 214 (refer now to Fig. 5), includes a human operator for assisting customers/users for interactive services, col. 16/lines 48-61 & col. 17/lines 55-67; the user/subscriber can watch regular television/video program or order a special program (as in Fig. 27a & 28a-28b), and further the user can switch to commercial channels (in Figs. 34b & 34c, for interactive services to a shopping center, airline reservations, hotel reservations etc. or cable subscription services; the commercial channels regarding as

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“background commercial channels” are separate channels from regular broadcast television/video services, see Fig. 20b and col. 38/lines 15-36).

Hendricks does not further provide the display including “at least one regular program **with** the at least one background commercial and wherein a Background Commercials are available for selective viewing during a regular program”; however, this technique of providing the display for both the regular program and a background commercial is taught by Macrae (refer to Macream Figs. 3 & 4) as Macrea clearly teaches while viewing a currently regular video program, the viewer has a background ad and/or an information channel as shown in Figs. 3 & 4 for a different contents at panel ad 404 while still viewing regular channel on image/video section; and the user can select or deselect the ad channel lineup (see col. 11/line 60 to col. 12/line 3 & col. 12/lines 37-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks’ system with Macrea’s teaching technique in providing the user/viewer an option to view at selected times a background channel ad or virtual commercial channel for recommending/presenting other programs and other services while still watching the current program on the display.

As for claim 2, Hendricks further discloses “wherein the information reflective of the at least one Background Commercial contains Audio-visual Information & Banner Information, the Banner Information being presented to the presentation unit with the at least one regular program” (Figs. 30c-30g for banners and commercial with audio/visual information, col. 47/lines 7-38).

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As for claim 3, Hendricks further discloses “comprising a control switch whereby the user can filter the Background Commercial portion of the digital signal from being delivered to the presentation unit”, i.e., the network has network controller 214 for controlling the switching of digital signals with background commercial portion being delivered to the user so that the user can filter what would be delivered to him/her, col. 16/lines 16-61).

As for claim 4, Hendricks further discloses “comprising a means for communicating the Background Commercial Viewing Data over the return channel from the receiver to the service operator, and means for updating a Background Commercial Viewing Record with the Background Commercial Viewing Data communicated from the receiver to the digital service operator”, i.e., “on the fly programming” is controlled by a service operator for communicating with subscribers on upstream links (Fig. 3/216), and the system is digital as noted earlier, col. 16/lines 48-61 & col. 17/line 55 to col. 18/line 40).

As for claims 5-10, these claims for “an interactive digital video service network, comprising: means for providing a digital signal, the digital signal having information reflective of at least one regular program and at least one Background Commercial, wherein the information reflective of the at least one Background Commercial contains Banner Information; an end user, the end user having a receiver for receiving the digital signal and a presentation unit for displaying at least a portion of the digital signal, the Banner Information being presented to the presentation unit with the at least one regular Program; and a channel communicating the digital signal from the means for providing a digital signal to the receiver” together with the viewing record as in claim 10 regarding as the user/viewer profile of Hendricks (Fig. 12 with viewer log file, and col. 31/line 18-col. 32/line 65, the system uses the viewer profile for

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targeting appropriate advertisement/commercial information channels) with same limitations as addressed earlier are rejected for the reasons given in the scope of claims 1-4 as disclosed above.

In addition to claim 5, Hendricks does not further provide the display including “at least one regular program with the at least one background commercial and wherein a Background Commercials are available for selective viewing during a regular program”; however, this technique of providing the display for both the regular program and a background commercial is taught by Macrae (refer to Macream Figs. 3 & 4) as Macrea clearly teaches while viewing a currently regular video program, the viewer has a background ad and/or an information channel as shown in Figs. 3 & 4 for a different contents at panel ad 404 while still viewing regular channel on image/video section; and the user can select or deselect the ad channel lineup (see col. 11/line 60 to col. 12/line 3 & col. 12/lines 37-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks’ system with Macrea’s teaching technique in providing the user/viewer an option to view at selected times a background channel ad or virtual commercial channel for recommending/presenting other programs and other services while still watching the current program on the display.

Regarding claim 11, Hendricks discloses “a method of providing digital programming to viewers, the method comprising the steps of: creating a combined digital television signal which combines information reflective of regular programming and Background Commercials, the information reflective of the Background Commercials containing Audio-visual Information and/or Banner Information; transmitting the combined digital television signal over a channel to end users; receiving the combined digital television signal at a receiver; selecting a selected portion of the combined digital signal from the information reflective of the regular

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programming and the Background Commercials for display at a presentation unit; and displaying the selected portion of the combined digital signal on the presentation unit” (Figs. 1 & 2 for an interactive digital video service network, either analog and digital signal service is provided, col. 7/line 45 to col. 8/line 30; the end user, as shown in Figure 3, uses a remote interface for controlling the TV and cable box or set top terminal 220—a receiver in receiving digital stream signals—also as a communication device for providing upstream interactive activities to the network controller 214—regarding as using “return channel” for communicating to the headend cable system, namely, the network controller 214; furthermore, network controller 214 (refer now to Fig. 5), includes a human operator for assisting customers/users for interactive services, col. 16/lines 48-61 & col. 17/lines 55-67; the user/subscriber can watch regular television/video program or order a special program (as in Fig. 27a & 28a-28b), and further the user can switch to commercial channels (in Figs. 34b & 34c, for interactive services to a shopping center, airline reservations, hotel reservations etc. or cable subscription services; the commercial channels regarding as “background commercial channels” are separate channels from regular broadcast television/video services yet all regular channels and commercial channels are combined as digital signals and transmitted from the cable system to receiver 220 with a display TV set 222, see Figs. 2 & 3, Fig. 20b and col. 38/lines 15-36).

In addition to claim 11, Hendricks does not further provide the display including “at least one regular program with the at least one background commercial and wherein a Background Commercials are available for selective viewing during a regular program”; however, this technique of providing the display for both the regular program and a background commercial is taught by Macrae (refer to Macream Figs. 3 & 4) as Macrea clearly teaches while viewing a



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currently regular video program, the viewer has a background ad and/or an information channel as shown in Figs. 3 & 4 for a different contents at panel ad 404 while still viewing regular channel on image/video section; and the user can select or deselect the ad channel lineup (see col. 11/line 60 to col. 12/line 3 & col. 12/lines 37-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks' system with Macrea's teaching technique in providing the user/viewer an option to view at selected times a background channel ad or virtual commercial channel for recommending/presenting other programs and other services while still watching the current program on the display.

As for claim 12-14, these claims are rejected for the reasons given in the scope of claims 2-4 as discussed above.

Regarding claim 15, Hendricks discloses "a receiver for an interactive digital video service network, the receiver comprising: means for receiving a digital signal, the digital signal having information reflective of a regular program and at least one Background Commercial, wherein the information reflective of the at least one Background Commercial contains Banner Information; means for decoding the digital signal and providing a first signal reflective of the regular program and a second signal reflective of the at least one Background Commercial; means for receiving the signal reflective of the at least one Background Commercial and providing a signal reflective of the Banner Information; and means for providing a video output signal, the means for providing the video output signal combining information from the signal reflective of the regular program and the signal reflective of the Banner Information" (Figs. 1 & 2 for an interactive digital video service network, either analog and digital signal service is provided, col. 7/line 45 to col. 8/line 30; the end user, as shown in Figure 3, uses a remote

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interface for controlling the TV and cable box or set top terminal 220—a receiver in receiving digital stream signals and decoding digital signals (refer to Fig. 24c and col. 12/line 35 to col. 14/line 40 for the set top terminal and the remote control device) —also as a communication device for providing upstream interactive activities to the network controller 214 —regarding as using “return channel” for communicating to the headend cable system, namely, the network controller 214; furthermore, network controller 214 (refer now to Fig. 5), includes a human operator for assisting customers/users for interactive services, col. 16/lines 48-61 & col. 17/lines 55-67; the user/subscriber can watch regular television/video program or order a special program (as in Fig. 27a & 28a-28b), and further the user can switch to commercial channels (in Figs. 34b & 34c, for interactive services to a shopping center, airline reservations, hotel reservations etc. or cable subscription services; the commercial channels regarding as “background commercial channels” are separate channels from regular broadcast television/video services, see Fig. 20b and col. 38/lines 15-36).

In addition to claim 15, Hendricks does not further provide the display including “at least one regular program with the at least one background commercial and wherein a Background Commercials are available for selective viewing during a regular program”; however, this technique of providing the display for both the regular program and a background commercial is taught by Macrae (refer to Macream Figs. 3 & 4) as Macrea clearly teaches while viewing a currently regular video program, the viewer has a background ad and/or an information channel as shown in Figs. 3 & 4 for a different contents at panel ad 404 while still viewing regular channel on image/video section; and the user can select or deselect the ad channel lineup (see col. 11/line 60 to col. 12/line 3 & col. 12/lines 37-67). Therefore, it would have been obvious to

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one of ordinary skill in the art at the time the invention was made to modify Hendricks' system with Macrea's teaching technique in providing the user/viewer an option to view at selected times a background channel ad or virtual commercial channel for recommending/presenting other programs and other services while still watching the current program on the display.

As for claims 16-17 and 18-25, these claims referring to the set top terminal and its operation for providing output signals and whether to disable and enable the Banner is disclosed by Hendricks as the user can set up the display menu and preferences, and also based on the user/subscriber information viewing profile, the system can selectively provide the appropriate commercial channels to the users as discussed earlier; therefore, these claims are rejected for the reasons given in the scope of claims 1-15 as disclosed by Hendricks in view of Macrae not limited to the above cited paragraphs but also to the entire teaching references of Hendricks and Macrae.

Regarding claims 26-33, in addition to earlier claims as claims 1, 5, 11, and 15, claims 26 and 27 further calls on the feature that the user can control or select the display on the presentation unit; and the Background Commercial contains audio-visual in bit streams together with the banner information, these feature are taught by Macrea (col. 4/lines 12-29 for bit stream video/audio; col. 8/lines 54-63 for ad banners information; Fig. 4 and col. 11/line 60 to col. 12/line 3 & col. 12/lines 37-67 for user controls over the ad channel).

### ***Conclusion***

6. **Any response to this action should be mailed to:**  
Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to PTO New Central Fax number:**  
(571) 273-8300, (for Technology Center 2600 only)

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*Hand deliveries must be made to Customer Service Window,  
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krista Kieu-Oanh Bui whose telephone number is (571) 272-7291. The examiner can normally be reached on Monday-Friday from 9:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller, can be reached at (571) 272-7353.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'K. Bui', with a long horizontal line extending to the right.

Kieu-Oanh Bui  
Primary Examiner  
Art Unit 2611

KB  
March 26, 2007